



INNOVATION. AUTOMATION. ANALYTICS

# **PROJECT ON**

# **IMDb Movie Data Analysis**

# **Using PowerBI**

Presented By :- Rohan Santosh Chauthe

# About me

- **Name :-** Rohan Santosh Chauthe .
- **Education :-** G. H. Rasoni college of engineering and business management ,Jalgaon.
- **Why I Want To Learn Data Science :-**
  - I want to learn data science because ,I've always been curious about how companies makes the decision about what customers likes or dislikes ,that urge of knowing how this decision making works in companies created my interest in data science .
- **Connect With Me :-**
  - LinkedIn** - [www.linkedin.com/in/rohanchauthe](http://www.linkedin.com/in/rohanchauthe)
  - GitHub** - <https://github.com/Rohanchauthe>

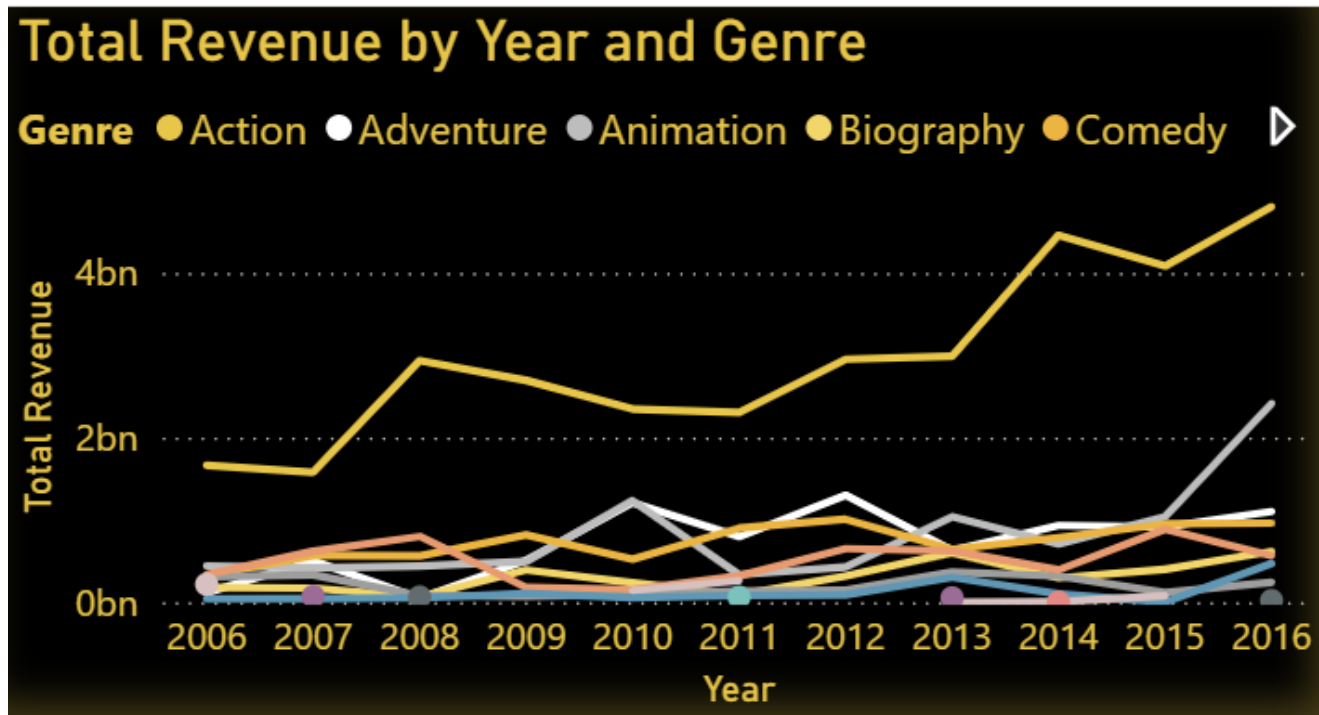
# Business Objectives

- To analyse IMDb movie data and identify key factors influencing **movie ratings, popularity, and audience engagement**
- To understand **genre-wise, year-wise, and performance-based trends** in the movie industry
- To evaluate **top-performing movies, genres, and contributors** based on ratings and votes.
- To present insights through **interactive Power BI dashboards** for easy exploration and comparison.

# Approach of Business Objective

- Collected and understood IMDb movie dataset with attributes such as ratings, genres, votes, and release year.
- Performed **data cleaning and transformation** to handle missing values, duplicates, and inconsistent formats.
- Created **calculated columns and measures using DAX** for deeper analysis.
- Designed **interactive Power BI dashboards** using slicers and visuals.
- Generated actionable insights to evaluate movie performance and audience preferences.

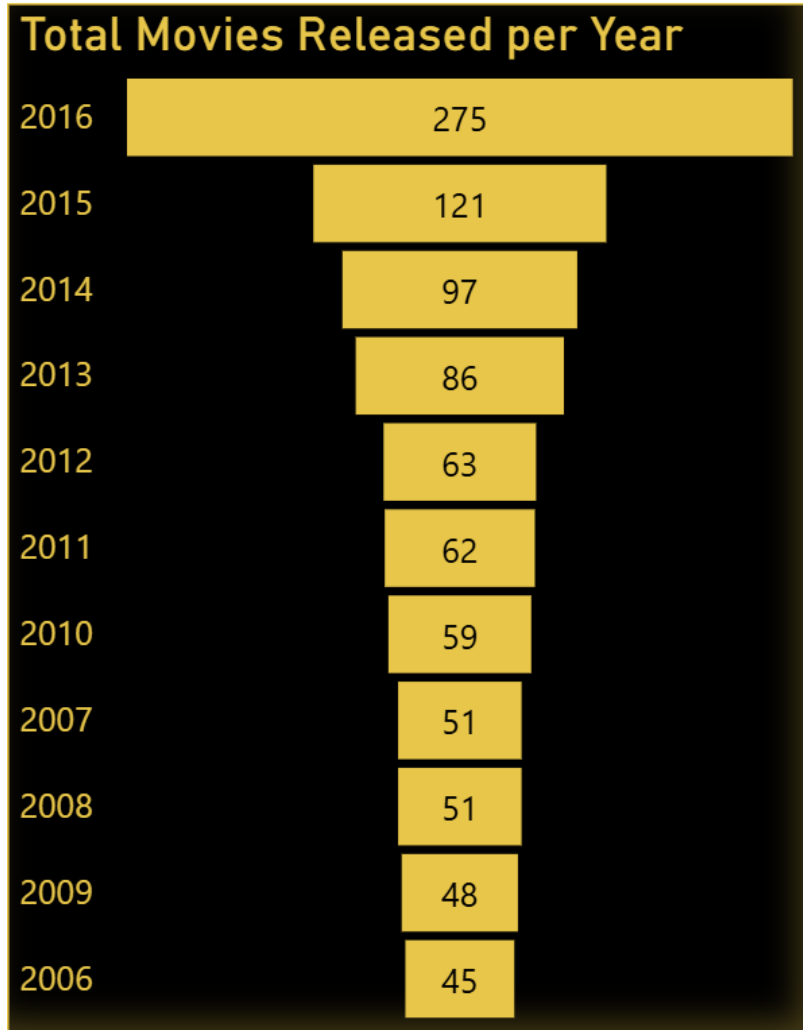
# Total Revenue By Year And Genre



## INSIGHTS :-

- Action genre consistently dominates total revenue across all years, significantly outperforming other genres.
- Certain years show **sharp revenue spikes**, likely driven by blockbuster releases rather than steady genre growth.
- Action movies generate very high revenue only in certain years, showing that success depends on a few blockbuster films.
- This makes Action movies high-risk, while other genres provide more stable revenue.

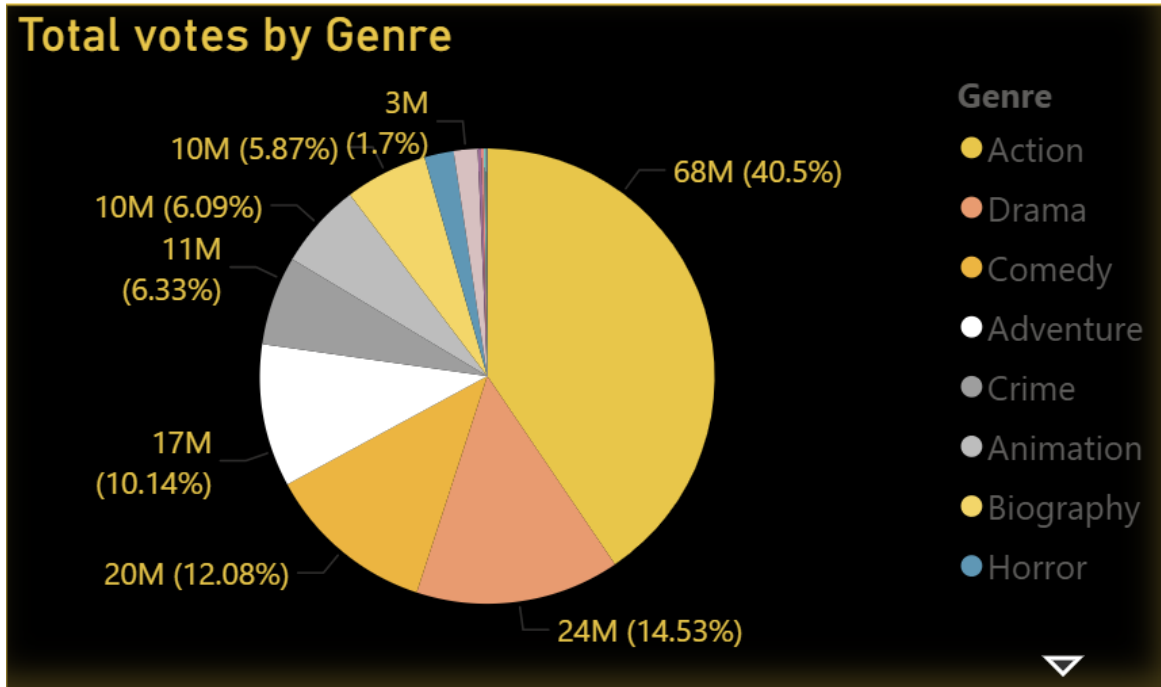
# Movie Released Per Year



## INSIGHTS :-

- There is a **strong upward trend** in the number of movies released over time.
- Movie releases increase gradually from **2006 to 2014**, indicating steady industry growth.
- A **sharp surge in 2016** suggests expansion driven by digital platforms and increased content demand.
- The rapid increase in releases may also indicate **higher competition and content saturation**

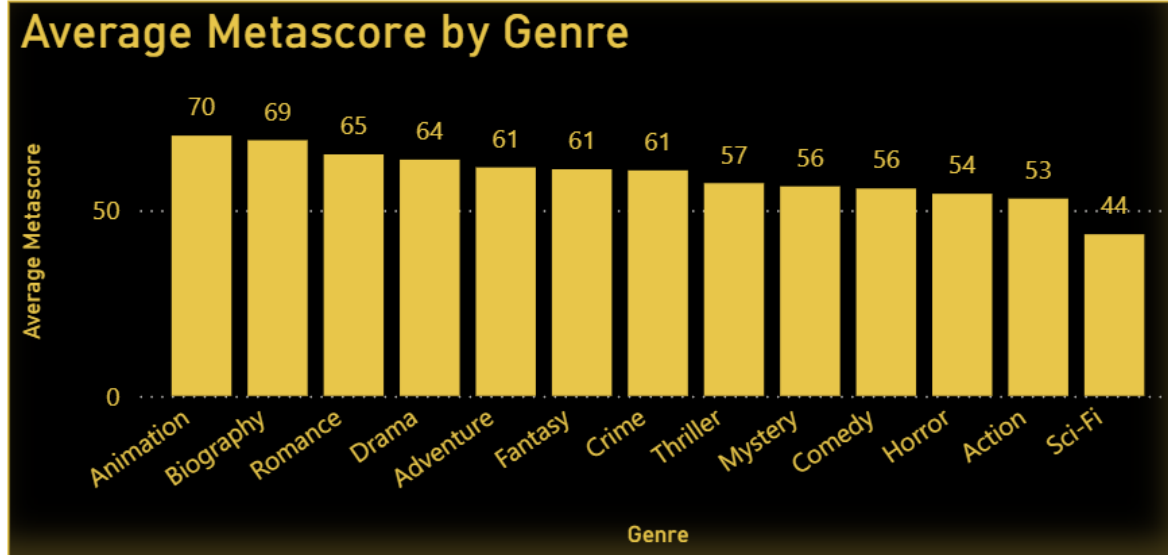
# Votes Distribution Across Genres



## INSIGHTS :-

- **Action genre dominates audience engagement**, contributing over **40% of total votes**, indicating strong mass appeal.
- **Drama and Comedy** follow as the next most engaging genres, reflecting consistent viewer interest.
- High vote share does not necessarily indicate quality, but reflects **visibility and audience volume**.

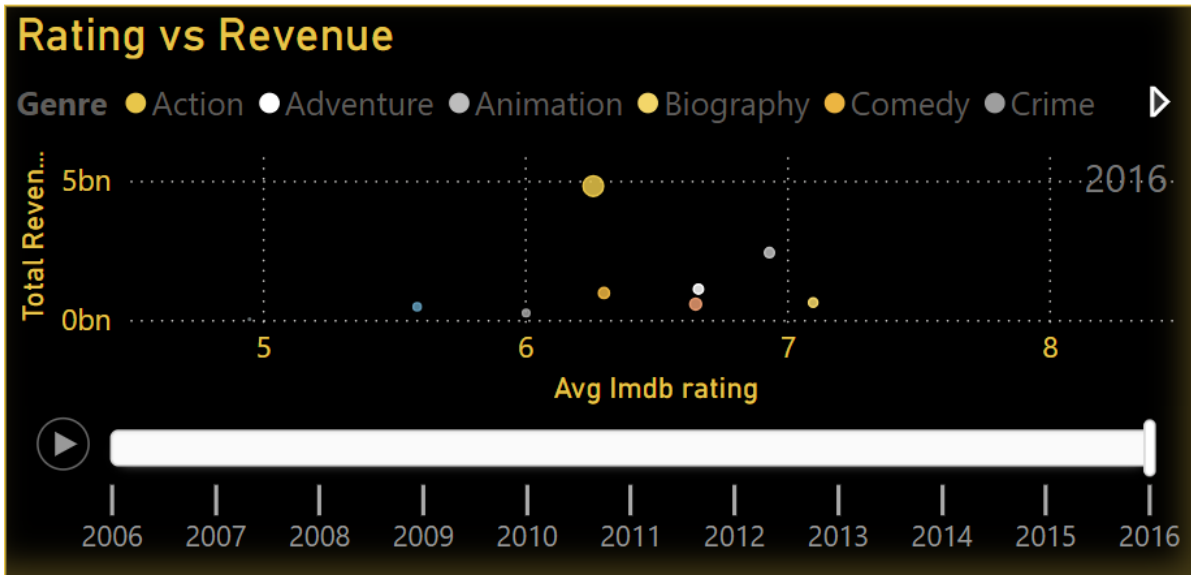
## Average Metascore per Genres



### INSIGHTS :-

- Animation and Biography genres receive the **highest Metascores**, indicating strong critical appreciation.
- The gap between **high Metascore genres** and **high-revenue genres** indicates a divide between critical acclaim and commercial success.
- Critically acclaimed genres tend to be **content-driven**, while lower Metascore genres rely more on spectacle and mass appeal.

# Rating Vs Revenue



## INSIGHTS :-

- The relationship between **IMDb rating and total revenue is weak to moderate**, indicating ratings alone do not drive commercial success.
- Most of the movies with 6-8 ratings generate **high revenue** showcasing visibility and audience reach.
- Overall, revenue performance depends on a **combination of genre, visibility, and audience reach**, not ratings alone.

# Experiences And Challenges

## Experience

- Worked with real-world IMDb movie data to derive meaningful insights
- Performed data cleaning, transformation, and modelling in Power BI
- Created interactive dashboards using DAX measures and slicers
- Improved data visualisation and business storytelling skills

## Challenges

- Handling missing, inconsistent, and multi-value data fields
- Managing data relationships and performance optimisation
- Choosing appropriate visuals to avoid clutter
- Converting analytical results into business-relevant insights

# Key Insights

- **Action genre is the main revenue driver**, showing strong growth but high year-to-year volatility.
- Movie releases have **increased significantly over time**, especially in recent years, indicating content saturation.
- **Audience engagement (votes) is highly concentrated** in Action, Drama, and Comedy genres.
- Genres with **high Metascores (Animation, Biography, Drama)** receive strong critical appreciation but generate lower revenue.
- **Ratings and revenue show a weak relationship**, meaning high ratings do not guarantee high earnings.
- Many **high-revenue movies have average ratings**, driven by genre popularity, marketing, and franchise value.
- Overall industry performance depends more on **genre appeal and audience reach** than on critical scores alone.

THANK YOU

